

Serial No. 10/717,966
Amdt. dated August 11, 2006
Reply to Office Action of May 17, 2006

Docket No. K-0552

Amendments to the Specification:

Please replace paragraph [0025] - [0027] with the following amended paragraphs:

[0025] The tub 20 preliminarily holds water to supply the water to the drum 30 uniformly. The tub 20 is elastically installed in the housing 10 using dampers 13a and 13b. A penetration hole ~~20a~~(not shown) is formed at a bottom center of the tub 20, and a driving shaft ~~40b~~(not shown) is installed through the penetration hole ~~20a~~ to be connected to the drum 30. Moreover, a plurality of ribs 20c are formed on a rear side of the tub 20 to enhance a rigidity of the tub 20.

[0026] The drum 30 holds a laundry ~~30~~ and is rotatably installed in the tub 20. And, the drum 30 includes a multitude of perforated holes 30a to make the water flow in from the tub 20. Moreover, a plurality of baffles 30b are attached to an inner circumference of the drum 30 to mix the laundry well. A driving unit 40 is installed in the vicinity of the tub 20 to provide a dynamic force for a rotation of the drum 30. Specifically, the driving unit 40 includes a motor, a clutch, and the like and is connected to the drum 30 to drive through a driving shaft.

[0027] Moreover, in the washing machine, installed are a water supply equipment 50 for supplying the water to the tub 20 and a drain equipment 60 for discharging the used water. The ~~drain-water supply~~ equipment 50 includes a water supply pipe 51, a valve 52 provided in the water supply pipe 51, and a detergent box 53. The water supply pipe 51 is connected to the tub 20 and extends through the housing 10 to be connected to an external water supply source. The valve 52 selectively opens or closes the water supply valve 51, and the detergent box 53 holds a

predetermined amount of a detergent therein. Hence, once the valve 52 is turned on, the water follows the water supply pipe 51 from the water supply source to be supplied to the tub 20 together with the detergent via the detergent box 53. Moreover, the drain equipment 60 includes a first drainpipe 61, a pump 62, and a second drainpipe 63. Specifically, the first drainpipe 61 is connected to the tub 20 and the pump 62 and the second drainpipe 63 is connected to the pump 62 to extend outside the washing machine through the housing 10. Since the pump 62 substantially controls a discharge of the water, the supplied water is always held in the first drainpipe 61 before being discharged. After completion of a washing step, once the pump 62 operates, the used water is discharged outside via the first and second drainpipes 61 and 63. A control equipment 70 is installed inside the control panel 12 and is electrically connected to various equipments 40, 50, and 60. The control equipment 70 receives a user's direction as an electric signal through the control panel 12 and controls operations of the respective equipments 40, 50, and 60 according to such a direction.

Please replace paragraph [0030] with the following amended paragraphs:

[0030] The air chamber 110 stores a predetermined amount of air and communicates with the tub 20. The air chamber 110, as shown in FIG. 2 and FIG. 3, includes a container forming a space for air storage inside. And, the air chamber 110 is connected to the first drainpipe 61 filled with the water instead of being directly connected to the tub 20 to communicate with. This is because the first drainpipe 61 is generally flexible to be conveniently

connected to the air chamber 110. More preferably, the air chamber 110 is connected to an extension pipe 61a diverging from the first drainpipe ~~[[51]]~~ 61 to freely adjust its installation location. The air chamber 110, as shown in FIG. 3, is securely coupled to the extension pipe 61a by a clamp 110a. Since the air chamber 110 communicates with the tub 20 directly or via the first drainpipe 61, a water pressure in the tub 20 works on the air in the air chamber 110. Hence, once the water level increases, the water pressure working on the stored air increases to raise the air pressure thereof.

Please replace paragraph [0032] with the following amended paragraphs:

[0032] The sensor 130 is a sort of a pressure sensor for sensing the air pressure in the tube 120. As the sensed air pressure is proportional to the water level, the water level of the water is substantially sensed by the sensing the air pressure. Moreover, the sensor 130 is electrically connected to the control equipment 70 and transfers a water level value continuously sensed during an operation of the washing machine to the control equipment 70. Hence, the control equipment 70 is provided with the sensed water level value to control the supply and discharge of the water. Namely, the control equipment 70 selectively drives the water supply ~~+~~or drain equipment 50 or 60 to provide various water levels appropriate for the washing, rinsing, and dewatering steps.

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Please replace paragraph [0036] with the following amended paragraphs:

[0036] Moreover, the ~~drum 30~~ tub 20 repeatedly collides with the air chamber 110 by the vibrations of rotation. Such collisions bring about noises. ~~IF~~ If the collisions are repeated for a considerably long time, the air chamber 110 may be broken. Hence, the protecting member, a another embodiment, fixes the air chamber 110 securely so that the air chamber 110 fails to collide with neighboring parts, and more specifically, with the tub 20. To play a role of such a protecting member, a boss 20a and a flange 112, as shown in FIG. 3, are formed at the tub 20 and the air chamber 110, respectively. The boss 20a extends from the tub 20 to have a predetermined height, and the flange 112 is securely coupled to the boss 20a using a coupling member ~~442~~ 112a. Hence, the air chamber 110 is fixed to the tub 20 to leave a predetermined interval, thereby failing to collide with the tub 20 which is vibrating so as not to be broken.

Please replace paragraph [0038] with the following amended paragraphs:

[0038] First of all, once a power of a washing machine is turned on, a water level and a washing time are set according to an amount of a laundry put in the drum 30. The control equipment 70 then turns on the valve 52 to supply water to the tub 20 via the water supply ~~valve~~ pipe 51.

Please replace paragraph [0040] with the following amended paragraphs:

[0040] In this case, the water in the first drainpipe 61 pressurizes the air in the air chamber ~~40~~ 110 and the air in the tube 120 is compressed by the pressurized air of the air

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chamber 110. The sensor 130 measures the air pressure in the tube 120 to sense the water level and outputs the sensed water level to the control equipment 70. As the water level increases, so does the applied pressure. Hence, the air pressures in the air chamber 110 and the tube 120 gradually increase. The sensor 130 keeps sensing the increments of the pressure and water level to transfer to the control equipment 70.

Please replace paragraph [0044] with the following amended paragraphs:

[0044] Meanwhile, while the washing machine operates, the water level sensing apparatus, and more particularly, the air chamber ~~10~~110 and the tube 120 are protected by the protecting members 111, 112, and ~~20~~20a. Hence, an external shock fails to be applied to the water level sensing apparatus 100. Even if the external shock is applied thereto, the sensing apparatus 100 is not disassembled or broken.